**DATE:** 3/7/2014

**FROM:** Diverse Power Incorporated

TO: Federal Communications Commission (FCC) Staff

**SUBJECT:** Expression of Interest – Rural Trials

Docket No. 10-90

### **Background**

Diverse Power is one of forty one EMC's incorporated in Georgia serving 26,525 Members with 33,664 meters and 4,665 miles of line in West Georgia and East Alabama. As a Member owned Cooperative, services for our Members are our livelihood and as a nonprofit organization we only have our Member's interest to satisfy. Our Member's and more importantly their children live in homes and attend schools in rural areas in which economics driven commercial broadband will never be justified. Today, an individual with a cable modem in the home has access to more bandwidth than entire school districts in some parts of our service area. These children deserve the same tools for development as all others. We have the poles and right of way in place but without some type of assistance to facilitate a broadband build-out, these children will continue to be left behind.

#### **Geographic Territory** -

Diverse Power on January 1, 2014 expanded its service area with an assets purchase of electric facility in southeast Georgia. The territory, facilities and members are now incorporated into Diverse Power. Because of this transaction our service area is now made up of 2 noncontiguous districts.

The northern district includes our headquarters in LaGrange Georgia and portions of seven counties; Heard, Coweta, Troup, Meriwether, Harris, Muscogee in Georgia and Chambers in Alabama. This district is fortunate in that the economics of commercial broadband work in most areas and many of the homes and schools have access to some type of high speed broadband via cable services.

Our southern district (Pataula District) is in southwest Georgia with the district office located in Cuthbert Ga. This district is a farming community with large tracts of land ideal for agriculture. Large irrigation center-pivot walkers and supporting water pumps dominate the landscape as the farmers rotate crops to make the most of the soil. Here, agriculture is big business but homes are far apart and return on investment is difficult or impossible for terrestrial broadband services.

Diverse Power proposes to provide anchor institutions listed in the following section with dark fiber. This will allow for an open, competitive style of commerce for all customers. By providing dark fiber, a next generation scalable architecture is available for potential future needs and this gives the

ability for 28 initial anchor institutions to procure bandwidth from a provider of their choice. Hardware to light and transport bandwidth between the anchor institutes and the bandwidth service provider will be made available using a Diverse Power Business Partner.

A second end use of the fiber backbone will be provided by a Diverse Power Business Partner. The field of precision agriculture is a growing industry. It is the process by which the farmer can maximize his yields while optimizing his resources. As with many other businesses, connectivity and bandwidth are essential to this process. Water management with pivot telemetry, fertilizer spreading applications and autopilot implement guidance are a few of the high tech procedures available to move farming to the next generation assuring us that the agriculture industry remains a viable business.

A third use involves Diverse Power's needs. The fiber backbone will be used to develop and install an electric smart grid system. Data acquisition and device control will be installed at each power substation as well as video surveillance. These measures alone will greatly enhance the electric grid reliability of the entire area.

The area to be covered in Georgia include Baker, Calhoun, Clay, Early, Miller, Quitman, Randolph, and Stewart counties. The County Census Tract IDs are listed in the table below. These counties have a total land area of approximately 2,647 square miles with an estimated population of 46,751.

FCC Experiment Eligible Locations

County	County Name	TractID	Eligible High Cost Locations	Extremely High Cost Locations	Annual Support
County	Ivallie	Паспо	Locations	COST LOCATIONS	Зиррогі
13007	Baker	13007960100	607	110	237,805.59
13007	Baker	13007960200	580	119	312,920.21
13037	Calhoun	13037950100	301	116	164,687.24
13037	Calhoun	13037950200	245	47	147,017.61
13061	Clay	13061960300	415	55	379,048.06
13099	Early	13099090100	316	71	188,626.20
13099	Early	13099090200	77	19	183,940.98
13099	Early	13099090300	97	9	104,831.55
13099	Early	13099090400	163	13	193,466.64
13099	Early	13099090500	253	30	359,744.22
13201	Miller	13201950100	535	72	252,921.59
13201	Miller	13201950200	250	12	80,733.59
13201	Miller	13201950300	561	25	319,363.58
13239	Quitman	13239960300	417	47	195,120.31
13243	Randolph	13243790100	289	64	345,333.70
13243	Randolph	13243790200	395	44	372,007.46
13259	Stewart	13259950100	252	66	138,597.68
13259	Stewart	13259950400	578	202	310,690.94

### **List of Anchor Institutions**

Baker County Board of Education 176 Hill Crest Drive, Newton, GA
Baker County K12 260 Highway 37 SW, Newton, GA

Clay County Board of Education 111 East Commerce Street, Ft Gaines GA

Clay County Elementary/Middle

Clay County Public Library

Calhoun County Board of Education

Calhoun County Elementary

Calhoun County Middle High

Calhoun County Public Library

Calhoun County Public Library

Calhoun County Public Library

Calhoun County Leary Library

Calhoun County Pataula Charter Academy

200 Hobbs Lane, Fort Gaines GA

10877 Dickey Street, Morgan GA

18904 Morgan Rd, Arlington GA

700 Manry Street, Edison GA

227 E Hartford St, Edison, GA

131 E Main St, Edison, GA

Early County Board of Education 11927 Columbia Street, Blakely, GA

Early County Elementary 283 Martin Luther King Junior Boulevard, Blakley GA

Early County Middle/High 2053 Columbia Rd, Blakley GA
Early County Maddox Library 11880 Columbia Street, Blakley GA

Early County City of Jakin Library 1091 Pearl Street, Jakin GA
Miller County Board of Education 96 Perry Street, Colquitt GA

Miller County K12

996 Phillipsburg Road, Colquitt GA

Miller County Public Library

259 E. Main Street, Colquitt, Georgia

Quitman County Board of Education

Kaigler School Rd, Georgetown, GA

Kaigler School Rd, Georgetown, GA

Quitman County Public Library

39 Old School Rd, Georgetown, GA

39 Old School Rd, Georgetown, GA

Randolph County Board of Education 98 School Drive, Cuthbert GA

Randolph County Elementary

214 N. Highland Avenue Cuthbert GA

Randolph County Middle/High

3451 Ga Hwy 266, Cuthbert, Georgia GA

Stewart County Board of Education

7168 Green Grove Road, Lumpkin GA

Stewart County Elementary

15582 GA Hwy 27 East, Lumpkin GA

Stewart County Middle/High

7062 Green Grove Road, Lumpkin GA

## Proposed technology

Diverse Power is proposing to attach multi-count dark fiber to existing poles or bury as necessary. The fiber will be routed such that the Anchor Institutions will be located on a fiber ring with connection to two major bandwidth centers with multiple bandwidth providers allowing them to shop for bandwidth. The fiber ring will also be available to others at market rates and will become a key facility to promote economic development of this area of Georgia. Diverse Power, an unbiased, open access telecommunication infrastructure provider will benefit when multiple providers enter

our communities to provide services, drive down costs and improve levels of service. We encourage the FCC, no matter how these rural experiments proceed, to require open networks when taxpayer investment occurs so that the maximum possible community benefit can be realized. Specifically, we ask the FCC consider requiring that any fiber optic telecommunications facilities including dark fiber subsidized by this program be made available to alternate carriers at market rates.

## State and/or Local or Tribal Government Participation in and/or Support for Project

Diverse Power as a member of the community of which we serve has always participation in all endeavors of State and Local Governments. By providing high speed connectivity to the county school systems and public libraries we will be working directly with both State and Local government to improve the education system and by offering dark fiber to others, we will also provide a tool for them to use to promote economic growth in their respective areas.

### **Existing Providers**

Windstream and ATT offer limited services in the populated areas of the towns as well as copper line phone service.

#### **Project Timeline**

Diverse Power is ready to begin immediately.

#### Scalability

Once construction has begun and segments of the fiber build are completed services could be offered immediately between end points. Because this is a substantial count fiber loop, additional laterals and or loops can be built as needed to connect points of service to the fiber network. For example, the cell phone carriers in the area would be able to build out 4G service to their towers using short laterals tied back to the Diverse Power fiber backbone. 4G service to this area would greatly enhance the internet availability to large numbers of people at a cost that the cell carriers could justify.

#### **Total Utility Investment**

\$1,500,000

## One Time Capital Infrastructure Investment Needed

\$7,500,000

#### **Total Project Cost**

# **Attachment B: Eligible Census Tracts and EMC Boundaries**

